

Let's Talk Extension Nutrition



With Evelyn L. Blanchard, Nutrition Specialist

WHAT TO DO WHEN THE HOME FREEZER FAILS TO OPERATE!

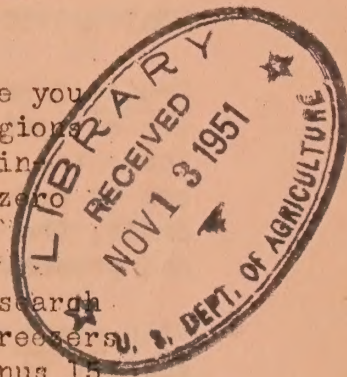
A number of requests have been received by this office as to what to do to save food in the home freezer when it fails because of mechanical defects or the power supply is out for any length of time.

Although several laboratories plan to carry out research on the subject, we thought you would be interested in the best information now available. The best thing to do is use dry ice, but if it is not available then remember - do not open the freezer. But consider the following points in order to determine how long the food will keep.

First, find out how long the power is likely to be off, or how long it takes to secure a service man. In each individual case, one must figure out how long it will take food stored to thaw out. In determining how long it takes to thaw, consider the following: How full is the freezer--what temperature is ordinarily maintained--how well insulated is the freezer--what kinds of food are stored--what is size of the freezer--what sanitary precautions were taken when the food was prepared for the freezer. This has much to do with how quickly food spoils.

The following suggestions will help you to determine how long the food in your home freezer will keep when it is not operating.

1. AMOUNT OF FOOD IN FREEZER. A full freezer takes many more hours to warm up than one a fourth full.
2. THE TEMPERATURE OF THE FOOD. The lower the temperature you normally maintain, the more leeway you have; and in regions where electrical storms are prevalent, it may be good insurance to run the freezer lower than the recommended zero degree.
3. THE INSULATION OF THE FREEZER. Results of a recent research project showed that the storage compartments of four freezers, one fourth full when the power was out, went from a minus 15 degrees to a plus 15 degrees F. in 10, 10, 15, and 9 hours respectively because of differences in insulation.



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4. **WEIGHT OF FOOD IN THE FREEZER.** Important, too, is the kind and number of pounds of food you have in the home freezer. Indications are the more pounds you have, the longer it takes to thaw.

What's in the freezer--meat, fruits, or baked goods. Meat weighing more, will hold cold longer.

5. **SIZE OF FREEZER.** Then, the smaller the freezer, the quicker it will warm up.
6. **SANITARY PRECAUTIONS IN PREPARING AND PACKAGING FROZEN FOOD.** Finally, the bacteria cause spoilage and the more sanitary one has been in preparing food for the freezer, the less bacteria there will be. It is well to remember that FROZEN BACTERIA ARE NOT DEAD BACTERIA, and when they warm up they become active.

Because of the importance of all these factors, one must weigh each of them in determining approximately how long it will be before the food in your home freezer begins to thaw and spoil when the power is off or the freezer fails to operate for other reasons.

In the experimental tests conducted by Mae Jenkins, Food Preservation Specialist, at the Consumers' Institute, it was found that food in a well-filled, 2-cubic foot home freezer did not thaw to any considerable extent for 72 hours after the power was cut or it failed to operate. The temperature of the upper layer of packages rose to 32 degrees F. 96 hours after freezer failed to operate. The bottom layer of packages took more than 120 hours to thaw. The room temperature was 80 degrees F.

Similar results were obtained in tests with 4-cubic foot--home freezers. For larger cabinets--12 to 36 foot--it was found to be doubtful, even in summer, if food in any part of a nearly full, well-insulated 24 cubic foot home freezer would begin to spoil in less than 5 days.

WHAT HAPPENS WHEN FRUITS, MEAT AND POULTRY, FISH AND VEGETABLES THAW OUT?

Fruits ferment when they spoil. The flavor will be ruined but the fruits are not poisonous. The worst that can happen, even if fruits are badly fermented, is that they become intoxicating like new wine. Thawed fruit can be refrozen. If there is any doubt as to the quality of the thawed fruit, there is the possibility that they can be made into jams, jellies, and preserves of high quality.

With meats and poultry, it is different. These are non-acid and are subject to putrefactive spoilage. Therefore, examine each package carefully before deciding what to do with it. If the package contains some

ice, you can refreeze it without risk. If thawed and the odor is still fresh and there is no sour smell, the products can be cooked and eaten safely. Be sure they are thoroughly cooked though. Otherwise, get rid of them.

Bacteria multiply quite rapidly in vegetables and shellfish, even at 50 degrees F. Also, the odor won't determine the bacteria count. Therefore, it is unwise to refreeze either of these products when they have been completely defrosted. If there is ice in the package, and they can be refrozen in less than 24 hours, it is usually safe to do so.

AS TO REFREEZING

First, this warmed food should be refrozen quickly. If your freezer is full of warmed foods, TO GET A QUICK REFREEZE, it's best to take it to a commercial cold storage or locker plant. Get it down to zero degrees F. Then it is safe to return it to your home freezer. If not completely full, rearrange the food to get the warmer packages in contact with the sides or next to the coils and pile the packages so that the air can circulate for a quicker job of freezing. If the freezer is too full perhaps some of the packages can be removed to the refrigerator.

As results of tests conducted by the U. S. Department of Agriculture's Bureau of Human Nutrition and Home Economics, under the leadership of Earl McCracken, Enid Sater, and Dorothy Skinner, they believe the best emergency treatment to save the food in a home freezer if the electricity goes off or it fails to operate for more than a few hours, is to rush for a supply of dry ice. A freezer owner need not worry if the home freezer failure can be remedied in a few hours.

If the freezer is not to operate for as much as 12 hours, obtain one or more 50-pound cakes of dry ice. These can be bought, generally, from ice cream manufacturers, creameries, cold storage warehouses, or dry ice distributors.

Transfer any food in the freezing compartment to a storage compartment. Then, saw or chip the dry ice into pieces and divide among the compartments. Put the dry ice on a board or heavy cardboard set directly on the packages. The more dry ice used the longer a warming is averted. A 50-pound cake of dry ice will hold the temperature down to 15 degrees F. for about 48 hours.

If blankets or any other covers are used outside the freezer be sure they are pinned or fastened so they will not cover air circulation openings around the compressor unit. When external coverings are used, crumpled newspaper or excelsior between the covering and cabinet will further

slow any temperature rise. Wrapping quilts, blankets or other coverings around a disabled freezer will not alone retard a "warm up"; but if used in connection with dry ice, they will help quite a bit. Dry ice is effective even if the power has been off 7 or 8 hours. The more dry ice used the longer the warm-up is averted.

There are times when the only practical solution is to can the thawed food to save it. Therefore, keep the canning equipment in good working order.